

IC19. VEHICLE AND EQUIPMENT MAINTENANCE AND REPAIR

Pollution Prevention

Consider pollution prevention measures at all times for improving pollution control. Implementation of pollution prevention measures may reduce or eliminate the need to implement other more costly or complicated procedures.

The following pollution prevention principles apply to most industries:

- Affirmative Procurement - Use alternative, safer, or recycled products.
- Redirect storm water flows away from areas of concern.
- Reduce use of water or use dry methods.
- Reduce storm water flow across facility site.
- Recycle and reuse waste products and waste flows.
- Move or cover potential pollution from storm water contact.
- Provide on-going employee training in pollution prevention.

Best Management Practices

1. Only conduct maintenance or repair work in designated areas.

- Conduct maintenance and repair work in a designated area with spill containment.
- Construct a berm or intercept trench at doorways to prevent the runoff of uncontaminated stormwater from adjacent areas as well as stormwater runoff.

2. Utilize dry cleanup methods such as sweeping, try to avoid washing down work areas.

- If work areas are washed and if discharge to the sanitary sewer is allowed, treat water with an appropriate treatment device (e.g. clarifier) before discharging. **DO NOT** discharge wash water to sanitary sewer until contacting the local sewer authority to find out if pretreatment is required.
- If discharge to the sanitary sewer is not permitted, pump water to a tank and dispose of properly.

3. Use drip pans and/or containers where needed. Keep a drip pan or container under equipment or vehicles when unclipping hoses, unscrewing filters, or conducting other maintenance and repair work that may result in fluids dripping or splattering onto the shop floor or ground.

4. Inspect vehicles and equipment for leaks.

- Inspect incoming vehicles and equipment for leaks.
- Inspect vehicles and equipment during regular maintenance; keep records.

5. Dispose of all waste products properly and recycle whenever possible.

- Promptly transfer waste materials to the proper waste or recycling drums.
- Store waste and/or recycling drums in designated areas with spill containment.
- Separate hazardous and non-hazardous wastes, do not mix used oil and solvents and keep chlorinated solvents separate from non-chlorinated solvents.
- Store cracked batteries in a non-leaking secondary container and dispose of properly at recycling or household hazardous waste facilities.

OPTIONAL:

- Recycle greases, used oils, oil filters, antifreeze, cleaning solutions, batteries, and hydraulic and transmission fluids whenever possible.

1. Only conduct maintenance or repair work in designated areas.
 2. Utilize dry cleanup methods such as sweeping try to avoid washing down work areas.
 3. Use drip pans and/or containers where needed.
 4. Inspect vehicles and equipment for leaks.
 5. Dispose of all waste products properly and recycle whenever possible.
 6. Paint signs near outdoor drains and post signs at sinks to remind employees and others not to pour wastes down drains.
 7. Clean storm drain inlet(s) on a regular schedule and after large storms.
 8. Store idle equipment under cover.
 9. Keep equipment clean and free of excess oil and grease.
 10. Completely drain oil filters before recycling/disposal.
 11. Remove all fluids from retired, wrecked, or salvaged vehicles.
 12. Dispose of per instructions on the container.
 13. Train employees on these BMPs, storm water discharge prohibitions, and wastewater discharge requirements.
- OPTIONAL:
14. Use non-toxic chemicals for maintenance when possible.
 15. Reduce or eliminate use of solvents when feasible.

- Label and track the recycling of waste material (e.g. used oil, spent solvents, batteries). Purchase recycled products to support the market for recycled materials.
 - Separate wastes for easier recycling. Keep hazardous and non-hazardous wastes separate, do not mix used oil and solvents, and keep chlorinated solvents separate from non-chlorinated solvents.
6. **Paint signs near outdoor drains and post signs at sinks to remind employees and others not to pour wastes down drains.**
 7. **Clean storm drain inlet(s) on a regular schedule and after large storms.**
 8. **Store idle equipment under cover.**
 9. **Keep equipment clean and free of excess oil and grease.**
 10. **Completely drain oil filters before recycling/disposal.**
 11. **Remove all fluids from retired, wrecked, or salvaged vehicles.**
 12. **Dispose of solvents per instructions on the container.**
 13. **Training**
 1. **Train employees on these BMPs, storm water discharge prohibitions, and wastewater discharge requirements.**
 2. **Train employees on proper spill containment and cleanup.**
 - Establish training that provides employees with the proper tools and knowledge to immediately begin cleaning up a spill.
 - Ensure that employees are familiar with the site's spill control plan and/or proper spill cleanup procedures.
 - BMP IC17 discusses Spill Prevention and Control in detail.
 3. **Establish a regular training schedule, train all new employees, and conduct annual refresher training.**
 4. **Use a training log or similar method to document training.**

OPTIONAL:

14. **Use non-toxic chemicals for maintenance when possible.**
 - Use non-caustic detergents instead of caustic cleaning for parts cleaning.
 - Use a water-based cleaning service and have tank cleaned. Use detergent-based or water-based cleaning systems in place of organic solvent degreasers.
 - Replace chlorinated organic solvents with non-chlorinated solvents. Non-chlorinated solvents like kerosene or mineral spirits are less toxic and less expensive to dispose of properly. Check list of active ingredients to see whether it contains chlorinated solvents.
 - Choose cleaning agents that can be recycled.
15. **Reduce or eliminate use of solvents when feasible**

References

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